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METALS and ALLOYS

Volume X—January, 1939 to December, 1939

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trends

By Edwin F. Cone, Editor

Convention Badges

In these columns in the August issue under the above title we called attention to the size of type on the badges at the A. S. T. M. convention and stated that this practice should be a trend. We were decidedly gratified to see this practice improved upon by the A. S. M. at the Metal Congress—names and so forth were typed (sometimes quite poorly) in letters about ⅜ in. high and were a help and a comfort to many a visitor.

Carboloy for Wear Resistance

We were impressed with the displays at the booth of the Carboloy Co. at the Metal Show which illustrate the growing applications of this material for wear resistance. It is believed that its future use in this field will parallel its application as a cutting tool. Carboloy is brazed in the steel at the point of wear or a solid Carboloy part is used.

Aeronautical Exports

Exports of American aeronautical equipment for the first half of 1939 were valued at $48,866,612—an increase of 31.63 per cent over the first half of 1938. In June at $10,619,563 an all-time record for one month was made, according to Secretary of Commerce Hopkins. Naturally France and the United Kingdom were the principal buyers.

Powder Metallurgy

Prominent in attracting interest at the National Metal Congress this year were the displays in the field of powder metallurgy. Pronounced strides have been made in the past year and the three or four booths in which powdered metals were displayed were centers of inquiring individuals. The displays were unusually informative and attractive.

Powdered Al and Fe

An authority in one of these displays did not hesitate to state that in his opinion the future of powdered aluminum and iron was full of promise and that developments would be highly important.

Steel Research Expanding

The steel industry's research programs for 1939 are announced by the American Iron and Steel Institute as about as intensive as those conducted in any previous year for which data are available. For this year the total estimated expenditure for research is approximately $10,000,000 or nearly $500,000 more than was spent in 1938 and 15 per cent more than the total ($8,700,000) in 1929. The record year was $10,300,000 in 1937. The upward trend is therefore being maintained.

Steel-Making Capacity

The trend in the total manufacturing capacity of steel producing furnaces in this country has been very marked in recent years and particularly since 1889 or 50 years ago. According to the American Iron and Steel Institute, while the number of such furnaces has increased only 350 per cent, the producing capacity has expanded 1030 per cent.

Steel Plant Dismantling

Abandonment or dismantling of certain types of steel plants in the last 13 years accompanied by an increase in the number of employees is a distinct trend over that period. The American Iron and Steel Institute reports that since 1926 there have been abandoned or dismantled 173 blast furnaces, 39 steel ingot plants and 144 plants making finished iron and steel products. In that 13-year period total number of employees has increased sharply.

Scrap Copper Exports

While our exports of scrap copper are not this year so large as in the last two years, they are still heavy. To Aug. 1 this year, they have been at the rate of 2,371,000 lbs. per month as against 3,485,700 lbs. and 3,635,100 lbs. in 1937 and 1938, respectively. They have been rapidly expanding this year having been about 1,781,600 lbs. monthly to May 1.

Metals and Television

The introduction of television to more general use by the public means considerable to the metal industry. Each television set contains from 16 to more than 30 tubes—many of them entirely dependent for satisfactory operation upon metal parts of pure nickel. This will mean much to the nickel and other industries as the trend in the use of such sets expands.

Aluminum Sails for Sailboats

A news despatch in the *New York Times* from New Jersey states that a sailboat enthusiast and inventor has developed and used an all-aluminum sail—"a seamless, paper-thin sheeting mounted on thin ribs of the same metal atop a trim 18-ft. sloop." Sounds reasonable. This application may broaden.

Exports of Refined Copper

The trend in American exports of refined copper is high. In the period 1937, 1938 and to May 1, 1939 (28 mos.), the total has been 1,516,950,440 lbs. or 54,176,800 lbs. per mo. The value of this total is recorded at $170,030,571. A substantial percentage has gone to Japan.